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EXPLORING AN INDIVIDUAL'S INTENTION TO USE BLOGS: THE ROLES OF SOCIAL, MOTIVATIONAL AND INDIVIDUAL FACTORS

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Abstract

Blogs are a new type of media for social interaction; they have become very popular, and have shown their influence throughout our society. However, little is known about what motivates an individual to participate in blogging activities. This study aims to explore how an individual's intention is influenced by social, motivational and individual factors. A survey, involving 283 subjects, was conducted to examine the proposed model. The results revealed that personal innovativeness in the domain of information technology (PIIT), perceived usefulness and perceived enjoyment have direct impacts on a persons' intent to use blogs. On the other hand, factors such as subjective norms and blog self-efficacy influence an individual's motivational factors; these factors, in turn, influence an individual's behavioral intention in regard to blog usage. The findings of this study not only contribute to a theoretical building of those factors that effect blog usage, but also provide implications to practitioners for understanding and promoting blog usage.

Keywords: Subjective norms, Motivations, Blog self-efficacy, Innovativeness, Behavioral intention.

1 INTRODUCTION

The rapid advancement of information and communication technology (ICT) has had a profound impact on people's daily lives. The recent widespread diffusion of Web 2.0 services leads the web applications. Blogs, an abbreviation of weblogs, make it easier for people to express their opinions, and blogging on the internet has become a primary and popular way to distribute information. However, users abandon the blogs soon after creating them, as a lot of effort is needed to maintain an energetic blog. Therefore, determining which factors could influence an individual's intent to use blogs has become an important issue to investigate.

Most prior studies on the use of blogs have adopted the concept of a social cognitive theory (SCT), or technological acceptance research that seldom considers the influence of individual characteristics such as personal innovativeness. According to the characteristics of social interaction, blogging behaviors are likely to be influenced by social forces (i.e. social factor) and personal motivation (i.e. motivational factor); however, these two factors may not be able to capture all of the important factors influencing the use of blogs. Besides the social and motivational factors, blogging is mainly a personal behavior and individual factors may also affect a person's intent to use blogs. Based on the social cognitive theory, the innovation diffusion theory and technology acceptance literature, an integrated model was developed including social, motivational and individual factors as antecedents of intention to use blogs. This study aims to extend the theoretical understanding of factors that influence blog usage, as well as to provide useful strategic insights and guidelines for blog service providers to increase users' interest in using their services.

2 THEORETICAL BACKGROUND AND HYPOTHESES

The proposed research model, shown as Figure 1, assumes that social, motivational and individual factors impact individuals' intention. Additionally, subjective norms, blog self-efficacy and personal innovativeness in the domain of information technology (PIIT) influence the motivational factors.

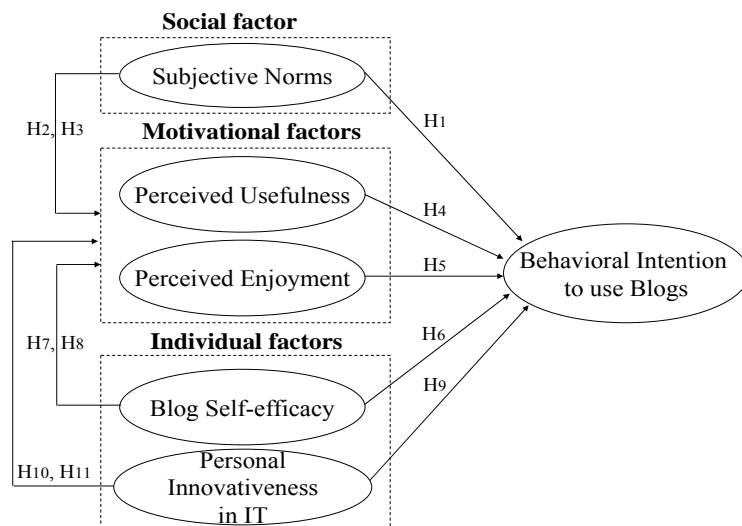


Figure 1. Research Model

2.1 Subjective norms

Fishbein and Ajzen (1975) defined subjective norms (SN) in their theory of reasoned action (TRA) as an individual's view of the perceived importance of what others think about his/her performing or not performing a specific behavior. On the other hand, in the theory of planned behavior (TPB),

subjective norms refer to “the perceived social pressure to perform or not to perform a particular behavior” (Ajzen 1991). Both TRA and TPB argue that subjective norms are a critical factor in predicting an individual's intention to perform a particular behavior. Subjective norms have also been conceptualized as social influences (Karahanna & Straub 1999) and social norms (Hsu & Lu 2004), which originated from the TRA. Based on the definitions of TRA and TPB, this study's subjective norms refer to the degree to which an individual acknowledges whether or not those people who are important to him/her think he/she should use blogs. Meanwhile, the behavioral intention (BI) to use blogs is defined as the degree to which an individual is willing to use blogs either now or in the future.

Many studies have explored the influence of subjective norms across various behaviors and situations, such as e-service acceptance (Hsu & Chiu 2004), instant messaging (Lu et al. 2009), blogging (Hsu & Lin 2008; Lu & Hsiao 2009), e-learning acceptance (Chiu & Wang 2008; van Raaij & Schepers 2008), mobile services (Lu et al. 2008), online games (Hsu & Lu 2004; Lee 2009), etc. The relationship between subjective norms and behavioral intention has been verified by prior studies (Karahanna & Straub 1999; Lee 2009; Lu & Hsiao 2009; Lu et al. 2009). Furthermore, empirical studies have also found that subjective norms positively influence an individual's perceptions towards IT applications (Lu et al. 2005; van Raaij & Schepers 2008). Accordingly, the following hypotheses are proposed:

H1: SN has a positive impact on a user's behavioral intention to use blogs.

H2: SN has a positive impact on a user's perceived usefulness regarding the use of blogs.

H3: SN has a positive impact on a user's perceived enjoyment regarding the use of blogs.

2.2 Motivational factors

According to the IS motivation theory (Davis et al. 1992), an IS user's behavior is affected by two kinds of motivation: extrinsic and intrinsic. In the IS discipline, extrinsic motivation is captured by perceived usefulness, and intrinsic motivation, by perceived enjoyment (Davis et al. 1992). Perceived usefulness (PU) refers to an evaluative belief about the degree to which a person believes that using a blog is advantageous to attaining certain goals. Davis et al. (1989) pointed out that perceived usefulness is a major determinant of a user's behavioral intention, and Bhattacharjee (2001) argued that an individual is more likely to pursue continuous usage when such usage is seen to be useful. A user's behavioral intention (BI) is the extent to which the user would like to use the blogs either now or in the future. The relationship between perceived usefulness and behavioral intention were validated in previous studies. For example, Li et al. (2005) validated this relationship about the adoption of instant messaging.

Perceived enjoyment (PE) refers to the degree to which a person views the use of blogs as enjoyable. Prior research proposed perceived enjoyment as a determinant of behavioral intention (Davis et al. 1992). Perceived enjoyment is an intrinsic motivation that has been found to have significant impact on a user's acceptance of technology, especially for hedonic systems (Davis et al. 1992; Van der Heijden 2004). An individual will be intrinsically motivated to adopt a specific application or service when its use is enjoyable (Lee 2009). Many studies have included perceived enjoyment as a predictor of user acceptance and the adoption of a specific application or service (Li et al. 2005; Van der Heijden 2004). They all verified that perceived enjoyment significantly influences a user's behavioral intention. This study will examine the impact of perceived usefulness and perceived enjoyment on an individual's intention to use blogs. The hypotheses are as follows:

H4: PU has a positive impact on a user's behavioral intention to use blogs.

H5: PE has a positive impact on a user's behavioral intention to use blogs.

2.3 Blog self-efficacy

Self-efficacy is derived from the social cognitive theory (SCT) proposed by Bandura (1977), which refers to an individual's perception of his own capability to perform a given behavior. With the rapid development of information technology, the impact of self-efficacy has been explored in different

contexts, for example, understanding people's attitude and behavior in the use of IT applications and services. According to Compeau and Higgins (1995), computer self-efficacy (CSE) is the self-assessment of an individual's ability to use computers to accomplish a task. Marakas et al. (1998) further distinguished general computer self-efficacy from task-specific computer self-efficacy. Agarwal et al. (2000) also drew a distinction between general computer self-efficacy and software-specific self-efficacy. Studies have shown that software-specific self-efficacy measures are more reliable and accurate than are general measures (Agarwal et al. 2000; Marakas et al. 1998). Extending this concept, Eastin and LaRose (2000) proposed internet self-efficacy while Hsu and Chiu (2004) posited web-specific self-efficacy to examine their effects on an individual's acceptance of online applications and services. Shang et al. (2008) defined blog self-efficacy (BSE) as “an individual's perceptions of his or her capability to use blogs to accomplish specific tasks”. This study will explore the influence of blog self-efficacy on individual behaviors.

Many studies have examined the impact of self-efficacy in regard to IT applications and services on the internet (Chiu & Wang 2008; Hsu & Chiu 2004; Lewis et al. 2003; Shang et al. 2008). The relationship between an individual's self-efficacy and his/her intention towards one particular application has been supported by prior studies (Chiu & Wang 2008; Hsu & Chiu 2004), together with the relationship between the individual's perceived beliefs and his/her self-efficacy (Chiu & Wang 2008; Lewis et al. 2003). Consequently, the following hypotheses are inferred:

H6: BSE has a positive impact on a user's behavioral intention to use blogs.

H7: BSE has a positive impact on a user's perceived usefulness regarding the use of blogs.

H8: BSE has a positive impact on a user's perceived enjoyment regarding the use of blogs.

2.4 Personal innovativeness in the domain of information technology (PIIT)

The innovation diffusion theory proposed by Rogers (1962) stated that people respond differently in their approaches to a new idea, practice, or object due to their individual differences. Previous consumer research showed that individuals can be differentiated by the constant characteristics of personal innovativeness (Midgley & Dowling 1978). Re-conceptualizing personal innovativeness, Goldsmith and Hofacker (1991) argued that the measure of this should be domain specific rather than global in nature. Domain specific innovativeness is more predictive in regard to individual behavior than are general innovativeness (Goldsmith & Hofacker 1991). In the context of information technology applications, Agarwal and Prasad (1998) created a term: personal innovativeness in the domain of information technology (PIIT) and defined it as “the willingness of an individual to try out a new information technology”. They pointed out that PIIT played an important role in understanding the diffusion of new information technology and the individual's intention to use it.

The substantial role of personal innovativeness in new technological applications has been examined in various contexts, such as world-wide-web information services (Agarwal & Prasad 1998; Lewis et al. 2003), online shopping (Bigné-Alcañiz et al. 2008; O'Cass & Fenech 2003), wireless mobile services (Lu et al. 2008), e-learning (van Raaij & Schepers 2008), and online travel shopping (Lee et al. 2007). Many studies have explored the relationship between personal innovativeness and technology acceptance and suggest that individuals with higher levels of innovativeness might develop more positive perceptions of usefulness, ease of use and compatibility, which in turn increases an individual's intention to use the technology. Prior studies have shown that personal innovativeness has significant impact on perceived beliefs (Lewis et al. 2003; Lu et al. 2008; Walczuch et al. 2007). Furthermore, the collective findings of innovation diffusion and IS research indicated that personal innovativeness has a significant relationship to an individual's behavioral intention (Agarwal & Prasad 1998; Bigné-Alcañiz et al. 2008; Lu et al. 2008). Therefore, the following hypotheses are proposed:

H9: PIIT has a positive impact on a user's behavioral intention to use blogs.

H10: PIIT has a positive impact on a user's perceived usefulness regarding the use of blogs.

H11: PIIT has a positive impact on a user's perceived enjoyment regarding the use of blogs.

3 METHODOLOGY

The participants in this study are students from the business school at a university of science and technology in Taiwan and range in age from 18-45. This study chose Wretch (<http://www.wretch.cc/>), a well-known blog website in Taiwan, which provides an easy way for general internet users to publish materials on any chosen topic that they wish to share, or discuss with others. Blogging is a popular application of Web 2.0; the contents provided by their users are varied, including professional knowledge, new concepts, personal interests and hobbies, and so on.

Before the survey, the students were given a brief introduction, including a hands-on interaction, to Wretch, and one assignment. The basic activities included: creating an account, uploading and downloading some materials, writing and replying to some content, and interacting with at least two other people in Wretch. After this introduction, students had two weeks to complete the assignment. Then, they were asked to complete the online questionnaire.

Of the 303 questionnaires distributed, 283 valid surveys were completed and received. On average, 60% of the participants connected to the internet for more than three hours each day, and 70.3% had more than six years internet experience. Among the 283 participants, 145 (51.2%) were male and 138 (48.8%) were female. Also, 63% of the participants were part-time students who had day jobs during the week, whereas the others were full-time students.

To ensure content validity, items used to measure constructs in the proposed model were adapted mainly from prior research, and slightly modified to suit the blogging environment. The measures for behavioral intention to use blogs, perceived usefulness and perceived enjoyment were based on existing research in technology acceptance literature and blog-related studies. The scale items for behavioral intention to use blogs were derived from previous studies (Davis 1989; Hsu & Lin 2008; Li et al. 2005). For subjective norms, items based on Ajzen and Fishbein's (1980) and Hsu and Lin's (2008) work were used. Items for measuring perceived usefulness were based on the studies of Davis (1989), as well as on Hsu and Lin (2008). The items to measure perceived enjoyment were extended from prior studies that had been validated in the web context (Hsu & Lin 2008; Li et al. 2005). The present blog self-efficacy items were adapted from previous studies on task-specific and Web-specific self-efficacy (Hsu & Chiu 2004; O'Cass & Fenech 2003) to fit into the context of blog usage. Personal innovativeness in the domain of information technology (PIIT) was measured using an instrument which Agarwal and Prasad (1998) had rigorously developed and validated. A seven-point Likert scale (1-7), with anchors ranging from strongly disagree (1) to strongly agree (7), was used to measure each item in the questionnaire.

4 DATA ANALYSIS AND RESULTS

Structural equation modeling (SEM) was used to test the proposed model. For this study, a structural equation modeling analysis was performed using partial least squares (PLS). In this study, descriptive statistics were computed using SPSS 16.0; model testing was performed with SmartPLS 2.0. Following the two-step analytical procedure suggested by Anderson and Gerbing (1988), this study first assessed the measurement model using confirmatory factor analysis (CFA) with which to validate the construct reliability and validity. Secondly, the structural model was evaluated to test the proposed hypotheses.

4.1 Measurement model

To evaluate the adequacy of the instrument, this research fulfilled the criteria of internal reliability, convergent validity and discriminant validity. Table 1 display the analysis results of reliability and validity. The Cronbach's alpha and composite reliability (CR) ensure the reliability of the scales. Ranging from 0.866 to 0.970, all Cronbach's alpha scores in this study were above the recommended value of 0.7 for scale robustness (Nunnally, 1978). Composite reliabilities in the proposed model ranged from 0.909 to 0.978 and exceeded the threshold of 0.7 recommended by Nunnally (1978).

Both results of reliability indicated that each construct in this study presented strong internal consistency.

This study assessed the convergent validity based on Fornell and Larcker's two criteria (1981): First, all item loadings exceeded 0.70 and were statistically significant at $p < 0.001$ on their corresponding construct. Secondly, all average variance extracted (AVE), ranging from 0.715 to 0.920, were greater than the acceptable level of 0.5. Therefore, the results demonstrated that the measurement items were reasonably convergent on their respective constructs. Additionally, this research adopted Fornell and Larcker's (1981) criteria of discriminant validity to examine whether the square root of the AVE for each construct exceeds the correlation shared between the construct and other constructs in the model. As shown in Table 1, all diagonal values exceeded the inter-construct correlations, thereby demonstrating adequate discriminant validity of all constructs.

Measures ^a	Items	Alpha	CR ^b	AVE	R ²	SN	BSE	PIIT	PU	PE	BI
SN	2	0.913	0.958	0.920		0.959					
BSE	11	0.968	0.972	0.756		0.170	0.869				
PIIT	4	0.866	0.909	0.715		0.552	0.241	0.846			
PU	4	0.970	0.978	0.918	0.166	0.288	0.332	0.195	0.958		
PE	6	0.969	0.975	0.865	0.205	0.287	0.392	0.237	0.872	0.930	
BI	4	0.958	0.970	0.889	0.694	0.245	0.358	0.265	0.768	0.821	0.943

Notes: ^a: SN is “subject norms”, BSE is “blog self-efficacy”, PIIT is “personal innovativeness in the domain of information technology”, PU is “perceived usefulness”, PE is “perceived enjoyment”, BI is “behavioral intention to use blog”. ^b: CR is “composite reliability”.

Table 1. Reliability and Validity

4.2 Structural model

Hypotheses	Path Coefficient	t-value	Support?
H ₁ : SN → BI	-0.054	1.216	No
H ₂ : SN → PU	0.243*	2.429	Yes
H ₃ : SN → PE	0.206*	2.295	Yes
H ₄ : PU → BI	0.231*	2.236	Yes
H ₅ : PE → BI	0.600***	5.773	Yes
H ₆ : BSE → BI	0.031	0.900	No
H ₇ : BSE → PU	0.294***	5.341	Yes
H ₈ : BSE → PE	0.348***	6.908	Yes
H ₉ : PIIT → BI	0.100*	2.245	Yes
H ₁₀ : PIIT → PU	-0.010	0.124	No
H ₁₁ : PIIT → PE	0.040	0.525	No

Notes: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
We used bootstrapping with a 500 re-sampling procedure to determine the T-values of our path coefficients. A value higher than 1.96 indicates significant paths.

Table 2. Summary of Hypotheses Testing

Table 2 shows the hypotheses testing results. As hypothesized, perceived usefulness, perceived enjoyment and personal innovativeness in the domain of information technology (PIIT) had great impacts on an individual's behavioral intention to use blogs (H₄, H₅ and H₉), with path coefficients of 0.231, 0.6 and 0.1. Against expectations, subjective norms and blog self-efficacy did not significantly

influence behavioral intention (H1 and H6). The constructs explained 69.4% of the variance contained in behavioral intention to use blogs.

Consistent with Hypotheses 2 and 7, subjective norms and blog self-efficacy played significant roles in perceived usefulness, with path coefficients of 0.243 and 0.294. However, PIIT had no effect on perceived usefulness (H10). Collectively, these constructs explained 16.6% of the variance contained in perceived usefulness. Finally, subjective norms and blog self-efficacy had positive influences on perceived enjoyment (H3 and H8), with path coefficients of 0.206 and 0.348. They explained 20.5% of the variance. PIIT, however, had no effect on perceived enjoyment, which is inconsistent with Hypotheses 11.

5 DISCUSSION AND CONCLUSIONS

This study aimed to explore the influences of social, motivational and individual factors on a person's behavioral intention to use blogs. The results of this study provide various implications for both researchers and practitioners. First, this study is an initial attempt to directly explore the influences of blog self-efficacy directly, instead of verifying the influence of computer self-efficacy (CSE) or internet self-efficacy (ISE) on an individual's intended behavior. The results indicate that higher blog self-efficacy do not increase an individual's intention to use blogs. However, higher blog self-efficacy can increase a person's motivation. This implies that practitioners should take note of intrinsic motivational factor as well as extrinsic motivation in the design issues of blog websites, such as interface, functionality, etc. Secondly, similar to the influences of blog self-efficacy, subjective norms can only impact a person's intention to use blogs through motivational factors. The implication for practitioners comes back to the issue of how to increase an individual's motivation by improving their blog design. Thirdly, this study showed that the PIIT impacts a person's intentions directly and does not have significant influence on the user's intrinsic and extrinsic motivations. This means that if the providers of innovative applications or services want to find individuals or groups to promote their services and inspire others, one possible and effective way is to find individuals or groups possessing high personal innovativeness characteristics. These people may already have the intention to immediately use such innovative services.

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